



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**BETTY RIVERA**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

September 23, 2002

**Mallon Oil Company**  
**c/o Holland & Hart LLP**  
**P. O. Box 2208**  
**Santa Fe, New Mexico 87504-2208**  
**Attention: William F. Carr**

**Telefax No. (505) 983-6043**

*Administrative Order SD-02-03*

Dear Mr. Carr:

Reference is made to the following: (i) your meeting in Santa Fe, New Mexico on August 22, 2002 with the New Mexico Oil Conservation Division's ("Division") Chief Hearing Officer/Engineer, Mr. Michael E. Stogner; (ii) the application submitted for Mallon Oil Company ("Mallon") at that time for approval of the simultaneous dedication of wells to seventeen spacing and proration units on Jicarilla Apache Tribal Lands in Rio Arriba County, New Mexico for wells completed in the San Jose, Nacimiento and Ojo Alamo intervals of the Cabresto Canyon-Tertiary Pool; (iii) the record of the July 11, 2002 examiner hearing held in Aztec, New Mexico in New Mexico Oil Conservation Division Case No. 12892 concerning an infill pilot project for the area in which the subject spacing and proration units and wells are located and, in particular, the geological and engineering evidence concerning the separation between the producing intervals of the Tertiary formation; (iv) your supplemental technical data submitted to the Division on August 21, 2002; (v) the records of the Division in Santa Fe including the files on Division Administrative Orders NSL-2576A, NSL-3993/3993A, and NSL-4355; (vi) the record in New Mexico Oil Conservation Division Case No. R-11231 on August 12, 1999, that served to amend Division Order No. 104; and (vii) the record in New Mexico Oil Conservation Division Case No. 12481 on September 5, 2000, that served to consolidate the Cabresto Canyon-San Jose Pool and the Cabresto Canyon-Nacimiento Pool and the Cabresto Canyon-Ojo Alamo Pool into one pool named the Cabresto Canyon-Tertiary Pool.

## **The Division Director Finds That:**

(1) Mallon is the sole owner and operator of oil and gas mineral rights under the following four contract areas within the Jicarilla Apache Lands in Rio Arriba County, New Mexico:

- (a) Indian Mineral Development Agreement ("IMDA") No. 701-98-0013 currently comprising the following described 29,789.51 acres, more or less:

TOWNSHIP 28 NORTH, RANGE 2 WEST, NMPM

Sections 3 through 9:	All
Section 10:	NW/4
Sections 17 and 18:	All

TOWNSHIP 29 NORTH, RANGE 2 WEST, NMPM

Sections 4 through 9:	All
Sections 15 through 23:	All
Sections 26 through 34:	All

TOWNSHIP 29 NORTH, RANGE 3 WEST, NMPM

Sections 1 and 2:	All
Sections 11 through 14:	All
Section 24:	All

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Section 25:	All
Sections 27:	All
Section 28:	E/2
Sections 33 through 36:	All

- (b) IMDA 701-90-0002 currently comprising the following described 1219.02 acres, more or less:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Section 28:	W/2
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TOWNSHIP 31 NORTH, RANGE 3 WEST, NMPM

Section 5:	W/2
Section 6:	S/2
Section 32:	S/2

- (c) Jicarilla Contract No. 451 currently comprising 2536.29 acres, more or less, of the following described lands:

TOWNSHIP 29 NORTH, RANGE 3 WEST, NMPM

Sections 3 and 4: All  
Sections 9 and 10: All

- (d) Jicarilla Contract No. 452 currently comprising 2235.53 acres, more or less, of the following described lands:

TOWNSHIP 29 NORTH, RANGE 3 WEST, NMPM

Sections 5 through 8: All

(2) Mallon is partial owner but sole operator of oil and gas mineral rights underlying all or portions of seven other offsetting contract areas within the Jicarilla Apache Lands in Rio Arriba County, New Mexico as further described below

- (a) Jicarilla Contract No. 457 currently comprising 2532.97 acres, more or less, of the following described lands:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Sections 3 and 4: All  
Sections 9 and 10: All

- (b) Jicarilla Contract No. 458 currently comprising 2249.19 acres, more or less, of the following described lands:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Sections 5 through 8: All

- (c) Jicarilla Contract No. 459 currently comprising 2267.20 acres, more or less, of the following described lands:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Sections 17 through 20: All

- (d) Jicarilla Contract No. 460 currently comprising 1999.99 acres, more or less, of the following described lands:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Sections 15 and 16: All  
Section 21: All

- (e) Jicarilla Contract No. 461 currently comprising 1972.12 acres, more or less, of the following described lands:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Sections 13 and 14:	All
Section 24:	All

- (f) Jicarilla Contract No. 462 currently comprising 1920.00 acres, more or less, of the following described lands:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Sections 22 and 23:	All
Section 26:	All

- (g) Jicarilla Contract No. 464 currently comprising 2409.62 acres, more or less, of the following described lands:

TOWNSHIP 30 NORTH, RANGE 3 WEST, NMPM

Sections 29 through 32:	All
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(3) At the time this application was filed the applicable rules and regulations for gas producing intervals developed on 160-acre spacing in northwest New Mexico allow only one well on each spacing unit in a defined gas pool.

(4) On September 5, 2000, the Division entered Nomenclature Order No. R-11445, which consolidated the Cabresto Canyon-San Jose Pool, the Cabresto Canyon-Nacimiento Pool and the Cabresto Canyon-Ojo Alamo Pool in to one pool, called the Cabresto Canyon-Tertiary Pool.

(5) The San Jose, Nacimiento and Ojo Alamo intervals of the Cabresto Canyon-Tertiary pool are separate sources of supply in the Tertiary formation and are not in communication with each other.

(6) Mallon's application, having been duly filed with the Division, meets the provisions of Division Rules: (i) 104.D(3), revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999; and (ii) 1207.A(2), revised by Division Order No. R-11205, issued by the New Mexico Oil Conservation Commission in Case No. 12177 on June 17, 1999.

(7) All affected persons within this combined area have been notified and no objections to Mallon's requests have been filed with the Division.

(8) Approval of Mallon's application for the simultaneous dedication of the wells to each of 17 spacing proration units located on Jicarilla Apache contract lands located in Rio Arriba County, New Mexico will not result in more than one well producing from any separate producing interval in the Tertiary formation, Cabresto Canyon-Tertiary Pool and should be approved.

(9) Approval of this application is in the best interest of conservation, will serve to prevent waste, protects correlative rights, exhibits sound geological and engineering principals and will allow Mallon to develop its gas reserves within the separate producing intervals of the Tertiary formation, Cabresto Canyon-Tertiary Pool, developed on 160-acre spacing underlying each of the subject spacing and proration units.

**It Is Therefore Ordered That:**

(1) By authority granted me under the provisions of the Division Rule 104(D)(3), revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999, Mallon Oil Company ("Mallon") is hereby authorized to simultaneously dedicated the following wells to the seventeen spacing and proration units in the Tertiary formation. Cabresto Canyon-Tertiary Pool, located on the hereinafter-described Jicarilla Apache Contract Lands located in Rio Arriba, County, New Mexico:

- (a). To the standard gas spacing and proration unit comprised of the SE/4 of Section 7, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
  - (1) the Jicarilla "458" SJ Well No. 2 (**API No. 30-039-26182**) located 864' from the South line and 1345 feet from the East line (Unit O) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated intervals 1452' to 1646'), and
  - (2) the Jicarilla "458" Well No. 2 (**API No. 30-039-2486**) located 782 feet from the South line and 1446 feet from the East line (Unit O) which is completed in the the Ojo Alamo interval of Cabresto Canyon-Tertiary Pool (perforated intervals 3088'to 3174'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.

(b) To the standard gas spacing and proration unit comprised of the SW/4 of Section 8, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:

(1) the Jicarilla "458-8" SJ Well No. 9 (**API No. 30-039-26233**) located 1450 feet from the South line and 1350 feet from the West line (Unit K) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated intervals 1480' to 1745'), and

(2) the Jicarilla "458-8" Well No. 9 (**API No. 30-039-25758**) located 1450 feet from the South and West lines (Unit K) which is completed in the the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3080' to 3126').

✓ (c) To the standard gas spacing and proration unit comprised of the SE/4 of Section 8, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:

(1) the Jicarilla "458-8" SJ Well No. 10 (**API No. 30-039-26178**) located 784 feet from the South line and 1286 feet from the East line (Unit P) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1462' to 1562'), and

(2) the Jicarilla "458-8" Well No. 10 (**API No. 30-039-25862**) located 800 feet from the South line and 1190 feet from the East line (Unit P) which is dually completed in the Nacimiento interval of the Cabresto Canyon-Tertiary Pool (perforated interval 2741' to 2960') and the Ojo Alamo interval of the Cabresto Canyon- Tertiary Pool (perforated interval 3099' to 3150'), however, the Nacimiento interval is currently shut-in.

✓ (d) To the 151.31-acre standard gas spacing and proration unit comprised of the NE/4 of Section 8, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:

- (1) the Jicarilla "458-8" SJ Well No. 7 (**API No. 30-039-26271**) located at an approved unorthodox well location (Division Administrative Order NSL-4355) 2301 feet from the North line and 868 feet from the East line (Unit H) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1417' to 1538'), and
  - (2) the Jicarilla "458-8" Well No. 7 (**API No. 30-039- 25759**) located at an approved unorthodox well location (Division Administrative Order NSL-3993/3993A) 2270 feet from the North line and 795 feet from the East line (Unit H) which is downhole commingled in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3133' to 3200') and the Nacimiento interval of the Cabresto Canyon-Tertiary Pool (perforated interval 2920'-3046').
- (e) To the standard 152.12-acre gas spacing and proration unit comprised of the NW/4 of Section 9, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "457-9" SJ Well No. 2 (**API No. 30-039-25905**) located 719 feet from the North line and 802 feet from the West line (Unit D) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1030' to 1703'), and
  - (2) the Jicarilla "457-9" Well No. 2 (**API No. 30-039-26064**) located 695 feet from the North line and 731 feet from the West line (Unit D) which is downhole commingled in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3205' to 3282') and the Nacimiento interval of the Cabresto Canyon-Tertiary Pool (perforated interval 2372'-2392').
- (f) To the standard gas spacing and proration unit comprised of the SW/4 of Section 9, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "457" SJ Well No. 1 (**API No. 30-039-26245**) located 1498 feet from the South line and 1244 feet from the

West line (Unit L) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1451' to 1622'), and

- (2) the Jicarilla "457" Well No. 1 (**API No. 30-039-24106**) located 1450 feet from the South line and 1190 feet from the West line (Unit L) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3146' to 3247'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.
- (g) To the standard gas spacing and proration unit comprised of the NW/4 of Section 16, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "460-16" SJ Well No. 1 (**API No. 30-039-25942**) located 1940 feet from the North line and 734 feet from the West line (Unit E) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1520' to 1778'), and
  - (2) the Jicarilla "460-16" Well No. 1 (**API No. 30-039-25760**) located 1850 feet from the North line and 690 feet from the West line (Unit E) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3164' to 3208').
- (h) To the standard gas spacing and proration unit comprised of the SW/4 of Section 16, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "460-16" SJ Well No. 4 (**API No. 30-039-26238**) located 771 feet from the south line and 1198 feet from the West line (Unit M) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1618' to 1682'), and
  - (2) the Jicarilla "460-16" Well No. 4 (**API No. 30-039-257845**) located 840 feet from the South line and 1180 feet from the West line (Unit M) which is completed in the Ojo Alamo



interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3247' to 3291').

- (i) To the standard gas spacing and proration unit comprised of the NW/4 of Section 17, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
  - (1) the Jicarilla "459 SJ" Well No. 8 (**API No. 30-039-26230**) Administrative Order NSL-4355) 286 feet from the North line and 1173 feet from the West line (Unit D) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1473' to 1622'), and
  - (2) the Jicarilla "459" Well No. 8 (**API No. 30-039- 24305**) located at an approved unorthodox well location (Division Administrative Order NSL-2576A) 287 feet from the North line and 1072 feet from the West line (Unit C) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3124' to 3222'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.
- (j) To the standard gas spacing and proration unit comprised of the SE/4 of Section 18, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
  - (1) the Jicarilla "459" SJ Well No. 1 (**API No. 30-039-26241**) located 1572 feet from the South line and 896 feet from the East line (Unit I) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1502' to 1722'), and
  - (2) the Jicarilla "459" Well No. 1 (**API No. 30-039-24087**) located 1665 feet from the South line and 940 feet from the East line (Unit I) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3136' to 3194'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.

(k) To the standard gas spacing and proration unit comprised of the NW/4 of Section 20, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:

- (1) the Jicarilla "459" SJ Well No. 2 (**API No. 30-039-26232**) located 1648 feet from the North line and 700 feet from the West line (Unit E) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1549' to 1592'), and
- (2) the Jicarilla "459" Well No. 2 (**API No. 30-039-24157**) located 1648 feet from the North line and 800 feet from the West line (Unit E) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3228' to 3252'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.

d (l) To the standard gas spacing and proration unit comprised of the SE/4 of Section 20, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:

- (1) the Jicarilla "459-20" SJ Well No. 12 (**API No. 30-039-25941**) located 849 feet from the South line and 1888 feet from the East line (Unit O) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1059' to 1790'), and
- (2) the Jicarilla "459-20" Well No. 12 (**API No. 30-039-25855**) located 790 feet from the South line and 1845 feet from the East line (Unit O) which is downhole commingled in the Pictured Cliffs formation, East Blanco-Pictured Cliffs Pool (perforated interval 3778' to 3848') and the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3276' to 3312').

(m) To the standard 175.86-acre gas spacing and proration unit comprised of the SW/4 of Section 21, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:

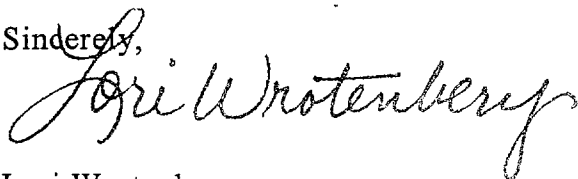
- (1) the Jicarilla "460" SJ Well No. 2 (**API No. 30-039-26229**) located 787 feet from the south line and 987 feet from the West line (Unit M) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1577' to 1726'), and
  - (2) the Jicarilla "460" Well No. 2 (**API No. 30-039-24112**) located 790 feet from the South line and 890 feet from the West line (Unit M) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3224' to 3286'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.
- (n) To the standard gas spacing and proration unit comprised of the SW/4 of Section 28, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "30-03-28" SJ Well No. 1 (**API No. 30-039-26239**) located 1195 feet from the South line and 873 feet from the West line (Unit M) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1537' to 1579'), and
  - (2) the Jicarilla "30-03-28" Well No. 1 (**API No. 30-039-25130**) located 1195 feet from the South line and 773 feet from the West line (Unit M) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3149' to 3231'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.
- ✓ (o) To the standard 177.32-acre gas spacing and proration unit comprised of the SW/4 of Section 29, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "464" SJ Well No. 8 (**API No. 30-039-26234**) located 1844 feet from the south line and 1345 feet from the West line (Unit K) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1600' to 1642'), and

- (2) the Jicarilla "464" Well No. 8 (**API No. 30-039-24253**) located 1850 feet from the South line and 1450 feet from the West line (Unit K) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3256' to 3308'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.
- ✓ (p) To the standard gas spacing and proration unit comprised of the NW/4, Section 29, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "464" SJ Well No. 7 (**API No. 30-039-26244**) located 1282 feet from the North line and 1152 feet from the West line (Unit D) which is completed (currently shut-in) in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1701' to 1720'), and
  - (2) the Jicarilla "464" Well No. 7 (**API No. 30-039-24301**) located 1190 feet from the North line and 1194 feet from the West line (Unit D) which is completed in the Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool (perforated interval 3286' to 3334'). In this well the Pictured Cliffs formation is isolated below a cast iron bridge plug.
- (q) To the standard gas spacing and proration unit comprised of the SE/4, Section 34, Township 30 North, Range 3 West, NMPM, Mallon seeks approval of the simultaneous dedication of:
- (1) the Jicarilla "30-03-34" SJ Well No. 4 (**API No. 30-039-26326**) located 2039 feet from the south line and 1977 feet from the East line (Unit J) which is completed in the San Jose interval of the Cabresto Canyon-Tertiary Pool (perforated interval 1648' to 1806'), and
  - (2) the Jicarilla "30-03-34" Well No. 4 (**API No. 30-039-26733**) located 2066 feet from the South line and 2018 feet from the East line (Unit J) which is downhole commingled in the Nacimiento interval of the Cabresto Canyon-Tertiary Pool (perforated interval 2647' to 2667') and in the Pictured Cliffs formation, East Blanco-Pictured Cliffs Pool and the

Ojo Alamo interval of the Cabresto Canyon-Tertiary Pool  
(perforated interval 3168' to 3234').

- (2) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,



Lori Wrotenbery  
Director

cc: New Mexico Oil Conservation Division - Aztec  
U. S. Bureau of Land Management - Albuquerque  
File: Case No. 12892  
Mallon Oil Company  
Attention: Patti L. Davis, CPL  
999 18th Street, Suite 1700  
Denver, Colorado 80202